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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,287	02/12/2004	Yukihiro Sasagawa	60188-772	3504

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EXAMINER

SOFOCLEOUS, ALEXANDER

ART UNIT	PAPER NUMBER
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2824

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/776,287

Applicant(s)

SASAGAWA, YUKIHIRO

Examiner

Alexander Sofocleous

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/16/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 9-11 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 13-25 is/are allowed.
- 6) ☒ Claim(s) 6 and 12 is/are rejected.
- 7) ☒ Claim(s) 7,8 and 26-31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date (1) 2/12/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Search History.

DETAILED ACTION

1. This action is responsive to the following communications: the Election filed on November 16, 2005, the Application filed on February 12, 2004, the Foreign Priority filed on February 12, 2004, and the Information Disclosure Statement filed on February 12, 2004.
2. Claims 1-31 are pending in the case. Claims 1, 6, 9, 12, 13, 17, and 21 are independent claims.
3. Claims 9-11 are withdrawn from consideration in view of the election. Election is treated as an election without traverse.

Election/Restrictions

Applicant's election of Group I (claims 1-8 and 12-31) in the reply filed on November 16, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Priority

4. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been received in the Application.

Specification

5. The disclosure is objected to because of the following informalities: The specification refers to figures 34 and 35, which do not exist (page 2, lines 23-25).

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It is suggested that the specification be updated to indicate which specific figures are being referenced, i.e., 34A, 34B, 34A and 34B, 35A, 35B, or 35A and 35B.

Appropriate correction is required.

Claim Objections

6. Claims 26-31 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Independent claim 21, from which claims 26-31 depends, is drawn to a semiconductor integrated circuit. Claims 26-31 are drawn to devices that contain this semiconductor integrated circuit and thereby broaden the scope of the invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claim 6, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Denham et al. U.S. Patent 5,557,225.**

Regarding independent claim 6, Denham et al. show a memory element (Fig. 7 [70]) that updates its content in synchronization with a supplied clock.

Denham et al. show the memory element comprises a latch circuit (Fig. 7 [711]) that acquires a supplied signal, or data, when the supplied clock is changed to a first value and the latch will hold, or retain, the data when the clock signal is changed to a second value (column 10, lines 47-52).

Denham et al. show A variation detector (Fig. 7 [716]) outputs a variation signal (Fig. 7 [line from 716 to 717]) indicative of a variation occurred in the content of the memory element when the input and output of the latch circuit are different (column 10, lines 47-52) and the supplied clock is changed to the first logic value (column 10, lines 31-34).

Regarding independent claim 12, Denham et al. disclose pluralities of flip-flop circuits (Fig. 7 [70]) in a processor device, which is well-known in the art to be a sequential circuit including a plurality of memory elements (column 1, lines 60-63; Fig. 1); where each of the memory elements updates its content in synchronization with a supplied clock. Denham et al. disclose detecting a variation occurred in a content of a memory element included in the plurality of memory elements (column 10, lines 47-49).

Denham et al. disclose generating a clock pulse when the variation is detected and supplying the clock pulse as the supplied clock to any of the plurality of memory elements whose input is varied when the content of said memory element is varied (column 10, lines 47-52).

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Allowable Subject Matter

9. Claims 7, 8, and 26-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-5, 13-20, and 21-25 allowed.

10. The following is an examiner's statement of reasons for allowance:

Regarding independent claim 1, 13, 17, and 21, the prior art of record fail to teach or disclose a variation detection means that that outputs a variation detection signal that depends on a state variation in the master cell and generates a clock signal to apply to the slave cell based on that variation detection signal.

Regarding dependent claim 7, which depends on rejected claim 6, the prior art of record fail to teach or disclose a delay element for delaying an output of the first logic element of the variation detection circuit.

Regarding dependent claim 8, which depends on rejected claim 6, the prior art of record fail to teach or disclose a basic clock generation circuit that generates a clock signal with a shorter pulse width based on the original clock signal.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Gervais et al. U.S. Patent 6,792,554 and Kawasaki et al. U.S. Patent 6,914,956.

Gervais et al. and Kawasaki et al. show a clocking system for a master latch and a slave latch where the master latch output is input to the slave latch.

When responding to this office action, applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner in locating appropriate paragraphs.

A shortened statutory period for response to this action is set to expire three months and zero days from the date of this letter. Failure to respond within the period for response will cause this application to become abandoned (see MPEP 710.02(b)).

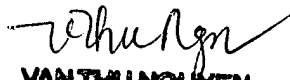
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Sofocleous whose telephone number is 571-272-0635. The examiner can normally be reached on 7:00am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on 571-272-1869. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AGS


VANTHU NGUYEN
PRIMARY EXAMINER